Shebbear Community School
Mathematics - Mixed-age Yearly Overview for Years 3 and 4 (Panda Class)

Autumn Term 1			
Wk	**Yr**	**Strands**	**Weekly Summary**
1	3	Number and place value (NPV); Measurement (MEA)	Revise placing 2-digit numbers on an empty number line; place 3-digit numbers on a landmarked line; explore place value; order 3-digit and 4-digit numbers; use £.p notation; compare amounts of money written in pounds and pence
	4	Number and place value (NPV); Measurement (MEA)	Explore place value in 4-digit numbers; write place value subtractions; place and order 3-digit numbers and 4-digit numbers on a landmarked line
2	3	Mental addition and subtraction (MAS)	Rehearse addition and subtraction facts up to 20; use the = sign to represent equality; use number facts to add/subtract a 1-digit number to/from a 2-digit number; count up and use number bonds to subtract 2-digit numbers from 100; add several small numbers, using number facts
	4	Mental addition and subtraction (MAS)	Add pairs of 2-digit numbers; add 2-digit numbers to 3-digit numbers; use Frog to subtract pairs of 2-digit numbers; count up and use number bonds to subtract 2-digit numbers from 100; choose counting up or back to subtract 2-digit numbers from numbers >100
3	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS)	Add 2-digit numbers by partitioning; subtract by counting up (answers less than 20 then answers more than 20); count up to find change from £1; use counting up (Frog) to subtract, check with addition
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS)	Add two 3-digit numbers then three 3-digit numbers using compact written addition; use counting up (Frog) to subtract, check with addition
4	3	Geometry: properties of shapes (GPS)	Recognise symmetry and complete symmetrical drawings; describe, name and sort 2D shapes; identify and use diagrams to sort 3D shapes according to their properties (cube, cuboid, cylinder, sphere, cone, pyramid)
	4	Geometry: properties of shapes (GPS)	Use compasses to draw circles to given radii; draw different polygons and identify their properties; identify properties of triangles and sort them using diagrams; describe and name 3D shapes and identify and use diagrams to sort them (cube, cuboid, cylinder, sphere, cone, pyramid and prism)
5	3	Mental multiplication and division (MMD)	Double 2-digit numbers up to 50; halve even 2-digit numbers; revise 5 and 10 times tables, division facts and commutativity; revise 2 times table, focusing on division; recognise multiples of 2, 5 and 10
	4	Mental multiplication and division (MMD)	Double and halve 2-digit numbers, including odd numbers; double and halve 3-digit numbers; revise 4 and 8 times tables and divisions; double the 3 times table to get the 6 times table; rehearse division facts for 3, 4, 5, 6 and 8 times tables

Autumn Term 2			
Wk	**Yr**	**Strands**	**Weekly Summary**
6	3	Number and place value (NPV); Mental addition and subtraction (MAS)	Use place value to add/subtract 3-digit numbers; add and subtract money using place value; add/subtract 1, 10 and 100 to/from any 3-digit number
	4	Number and place value (NPV); Mental addition and subtraction (MAS)	Use place value to add and subtract 4-digit numbers; add/subtract 1, 10, 100 and 1000 to/from 4-digit numbers

7	3	Number and place value (NPV); Mental addition and subtraction (MAS)	Add/subtract 100s, 10s and 1s with 3-digit numbers; add/subtract near multiples of 10 to/from 2-digit numbers and 3-digit numbers
	4	Number and place value (NPV); Mental addition and subtraction (MAS)	Add/subtract using place value and number facts (3-digit numbers and 4-digit numbers); add/subtract near multiples of 10 or 100 to/from 3-digit numbers
8	3	Mental addition and subtraction (MAS); Mental multiplication and division (MMD)	Know multiples of 5 which total 100; know pairs of 2-digit numbers which total 100; subtract numbers on either side of 100 by counting up (Frog)
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD)	Carry out 3-digit expanded decomposition with one exchange; carry out expanded decomposition with 3-digit numbers; subtract using decomposition or Frog
9	3	Mental multiplication and division (MMD); Measurement (MEA); Statistics (STA)	Revise telling time past the hour (to 5 mins) on both analogue and digital clocks; know equivalent analogue and digital times; time events in seconds and record on a bar graph (one step is 10 seconds); collect/represent data in pictograms (one symbol represents 2 units)
	4	Measurement (MEA); Statistics (STA)	Revise telling time, am and pm to the nearest minute on both analogue and digital clocks and convert between the two; find times later, crossing the hour, on both analogue and digital clocks; use am and pm; calculate time intervals, crossing the hour, using both analogue and digital clocks; time events in seconds and record on a bar graph (one step is 5 or 10 seconds); collect and represent data in pictograms (one picture represents four units)
10	3	Mental multiplication and division (MMD); Written multiplication and division (WMD)	Rehearse multiplication and division facts for the 3 and 4 times table; write division facts to go with multiplications; divide using multiplication facts, with remainders
	4	Mental multiplication and division (MMD); Written multiplication and division (WMD)	Use grid method to multiply a 2-digit number by a 1-digit number; divide numbers above the 10th multiple using chunking
11	3	Mental multiplication and division (MMD); Fractions, ratio and proportion (FRP)	Understand the concept of 1/2, 1/3 and 1/4of shapes and numbers; find half of quantities less than 100, including odd numbers; find 1/4, 3/4, 1/3 and 2/3 of quantities
	4	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP)	Divide 2-digit numbers just above the 10^{th} multiple with remainders; count in 1/4s, 1/3s and 1/10s saying equivalent fractions; find unit and non-unit fractions of amounts

Spring Term 1			
Wk	**Yr**	**Strands**	**Weekly Summary**
12	3	Number and place value (NPV); Decimals, percentages and their equivalence to fractions (DPE)	Revise placing 3-digit numbers on a number line; place 3-digit numbers between multiples of 10 on a 'hundred' line and round to the nearest 10; partition 3-digit numbers into 100s, 10s and 1s; compare and order numbers; order groups of 3-digit numbers; investigate 3-digit numbers.
	4	Number and place value (NPV); Decimals, percentages and their equivalence to fractions (DPE)	Divide numbers by 10 to give 1-place decimals; multiply numbers like 3.4 and 5.6 by 10; use function machines; compare and order numbers; place 1-place decimals on a number line and round to nearest whole; understand fractional and decimal forms of tenths (3/10 and 0.3); order numbers with one decimal place
13	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Measurement (MEA)	Add three 2-digit numbers; add pairs of 2-digit numbers using different strategies; subtract multiples of 10 and near multiples; count up to solve 2-digit subtractions; choose strategies to subtract
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Measurement	Use expanded and compact written addition to add amounts of money; count up to solve 3-digit subtractions; count up to find change from £5 and £10; count up to find

		(MEA)	a price difference
14	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS);	Add 3-digit numbers using expanded addition; estimate totals; subtract a 2-digit number from a 3-digit number using counting up (Frog)
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Problem solving, reasoning and algebra (PRA)	Add three then four 2-digit numbers using compact addition; subtract 3-digit numbers using expanded column subtraction; subtract 3-digit numbers choosing an efficient method; investigate patterns when subtracting 3-digit numbers
15	3	Measurement (MEA); Statistics (STA)	Measure in m, cm and mm; convert cm to m and mm to cm and vice versa; measure in kg and g; convert g to kg and vice versa; draw a bar graph; draw a bar graph where 1 square represents 2 units
	4	Measurement (MEA); Statistics (STA)	Measure in m, cm and mm; convert from cm to m and m and cm to m (2dp); convert from mm to cm (1dp); weigh in kg and g; convert from kg to g and vice versa (1dp); estimate weights and order items by weight; display information on a bar graph; draw a bar graph where 1 square represents 4 units
16	3	Fractions, ratio and proportion (FRP)	Place fractions on a number line (1/4s 1/2s and 1/8s); find fractions of amounts (1/4s, 1/8s,1/3s and 1/6s); understand denominator and numerator and compare fractions; recognise and find fractions with a total of 1
	4	Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE)	Identify equivalent fractions, especially in relation to halves and quarters; simplify fractions by reducing to their simplest form; identify equivalent fractions and mark on a number line; mark equivalent fractions/decimals on a number line; add and subtract fractions with the same denominator

Spring Term 2			
Wk	**Yr**	**Strands**	**Weekly Summary**
17	3	Number and place value (NPV); Mental multiplication and division (MMD)	Explore place value in 3-digit numbers including money; multiply and divide by 10 using place value grids; multiply and divide by 10 and 100; multiply and divide by 10 and 100 using money; use inverse operations
	4	Number and place value (NPV); Mental multiplication and division (MMD); Decimals, percentages and their equivalence to fractions (DPE)	Multiply and divide by 10 and 100 using 1-place decimals; multiply multiples of 10 and 100 by 1-digit numbers; add/subtract 0.1 and 1 to/from numbers with one decimal place; use negative numbers in the context of temperature; place negative numbers on a line; order positive and negative numbers
18	3	Number and place value (NPV); Mental addition and subtraction (MAS)	Add/subtract 1-digit numbers to/from 3-digit numbers; add/subtract multiples of 10 and 100; use addition and subtraction to solve word problems
	4	Number and place value (NPV); Mental addition and subtraction (MAS)	Add/subtract 1-digit numbers to/from 3 and 4-digit numbers; add/subtract multiples of 10, 100 and 1000
19	3	Written addition and subtraction (WAS); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Use compact and expanded addition to add pairs of 3-digit numbers; find a difference between pairs of numbers within the century; find a difference between pairs of numbers and check with addition; solve addition and subtraction word problems; use compact decomposition to subtract 3-digit numbers
	4	Written addition and subtraction (WAS); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA)	Add three 3-digit numbers using compact addition; use compact addition to add amounts of money; use expanded decomposition to subtract 3-digit numbers; use compact decomposition to subtract 3-digit numbers
20	3	Measurement (MEA); Geometry: position and direction (GPD)	Read and write analogue and digital times; match, read and write analogue and digital times; use timetables; calculate time intervals; understand angles as turns and

			right angles as quarter turns
	4	Measurement (MEA); Geometry: position and direction (GPD)	Tell time on digital and analogue clocks using 24 hour clock; convert 24-hour clock times to am and pm times; use timetables and calculate intervals; use x, y co-ordinates on a graph (first quadrant); use x, y co-ordinates to draw and translate shapes in the first quadrant
21	3	Mental multiplication and division (MMD)	Double the 4 times table to get the 8 times table; carry out varied multiplications for the 2, 3, 4, 5, 8, 10 times tables; divide within tables with remainders (÷ 2, 3, 4, 5, 8 and 10); solve multiplication and division word problems
	4	Mental multiplication and division (MMD)	Begin to know multiplication and division facts for the 7 times table; know multiplication and division facts for the 9 times tables; revise all times tables up to 12 × 10; find factors of numbers up to 40; use tables facts and place value to multiply multiples of 10 and 100 by 1-digit numbers
22	3	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP)	Multiply by 4 by doubling twice; divide by 4 by halving twice; find unit fractions of quantities using division facts; find non-unit fractions of quantities using division and multiplication
	4	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP)	Use the grid method or the ladder method to multiply 3-digit numbers by 1-digit numbers; know the 11 and 12 times tables; divide 2-digit numbers by 1-digit numbers (with remainders)

Summer Term 1			
Wk	**Yr**	**Strands**	**Weekly Summary**
23	3	Number and place value (NPV); Measurement (MEA)	Partition 3-digit numbers; order 3-digit numbers, place them on an empty number line and find a number between; place 3-digit numbers on landmarked lines; explore place value in money; use place value to add and subtract pounds
	4	Number and place value (NPV); Measurement (MEA)	Carry out place value additions/subtractions; place 4-digit numbers on landmarked lines and round to the nearest10/100; count on/back in steps of 25/1000; explore the history of zero and place value, learn the Roman numerals to 100
24	3	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Problem solving, reasoning and algebra (PRA)	Revise addition of 3-digit numbers; use compact addition to add pairs of 3-digit numbers (estimate totals); look for patterns and make generalisations; revise Frog subtractions across 100 (e.g. 1137 – 72); revise using Frog to subtract 3-digit numbers within same century (e.g. 476 – 438)
	4	Number and place value (NPV); Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Problem solving, reasoning and algebra (PRA)	Revise compact decomposition of 3-digit numbers; carry out expanded decomposition of 4-digit numbers (one move); carry out expanded then compact decomposition of four-digit numbers (two moves); use Frog to subtract pairs of 4-digit numbers; use counting up (Frog) to subtract pairs of numbers close to multiples of 1000, or when the larger number has zeroes
25	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental multiplication and division (MMD); Written multiplication and division (WMD)	Revise doubling numbers to 50 using partitioning; revise halving numbers to 100 using partitioning; revise times tables and division facts (1x, 2x, 3x, 4x, 5x, 8x, 10x); begin to use the grid method to multiply 2-digit numbers (teens numbers then numbers < 30) by 1-digit numbers; find and test rules.
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Mental	Carry out expanded and compact decomposition, including 3 moves; add any pair of 4-digit numbers using compact addition; add and subtract near multiples of 10,

		multiplication and division (MMD)	100 and 1000; choose mental or written methods for addition and subtraction; solve addition and subtraction word problems
26	3	Measurement (MEA); Geometry: position and direction (GPD); Statistics (STA)	Measure in l and ml and convert between the two units; revise measuring in m, cm and mm; draw a bar chart; find perimeters; revise am and pm times; begin to tell the time to the nearest minute; tell time to the nearest minute; compare time durations
	4	Measurement (MEA); Geometry: position and direction (GPD); Statistics (STA)	Revise co-ordinates and complete polygons; find areas of rectilinear shapes by counting squares; find perimeters of rectilinear shapes in cm; calculate perimeters of rectangles in cm and m; investigate area and perimeter
27	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Add three or four 2-digit numbers using expanded or compact addition; estimate answers; find and test rules; use Frog to find the difference between amounts of money
	4	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Decimals, percentages and their equivalence to fractions (DPE); Measurement (MEA)	Revise numbers with one decimal place, mark them on empty number lines and round to the nearest whole; introduce numbers with 2 decimal places on place-value grids; multiply and divide 1-digit, 2-digit then 3-digit numbers by 10 and 100 to give tenths, and hundredths; find equivalent 1/100s and 0.01s, 1/10s and 0.1s; carry out place value additions and subtractions (e.g. 4.06 + 0.5, 4.56 – 0.06)

Summer Term 2			
Wk	**Yr**	**Strands**	**Weekly Summary**
28	3	Number and place value (NPV); Decimals, percentages and their equivalence to fractions (DPE); Mental multiplication and division (MMD); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Count in 50s, 100s, 4s and 8s; work out the rule for a sequence; introduce 4-digit numbers, counting above 1000; explore place value in numbers from 1000 to 2000
	4	Number and place value (NPV); Decimals, percentages and their equivalence to fractions (DPE); Mental multiplication and division (MMD); Mental addition and subtraction (MAS); Problem solving, reasoning and algebra (PRA); Measurement (MEA)	Compare and order numbers with two decimal places; place numbers with two decimal places on landmarked lines (marked in 0.1s); add/subtract 0.1/0.01 to/from numbers with 2 decimal places; count on and back in tenths and hundredths; add/subtract multiples of 0.1/0.01; solve simple measure problems
29	3	Mental multiplication and division (MMD); Written multiplication and division (WMD)	Scale up/down by multiplying/dividing; divide numbers using times tables; divide numbers beyond times tables
	4	Mental multiplication and division (MMD); Problem solving, reasoning and algebra (PRA); Written multiplication and division (WMD) ; Measurement (MEA)	Solve correspondence problems; solve scaling problems: convert cm to m; revise factors; multiply three numbers together; use number facts to divide multiples of 10
30	3	Measurement (MEA); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD)	Revise units of time; recognise right angles and turns; identify if angles are greater/less than a right angle; identify perpendicular/parallel lines; count faces, vertices and edges of 3D shapes
	4	Measurement (MEA); Geometry: properties of shapes (GPS); Geometry: position and direction (GPD)	Complete symmetrical shapes and patterns; recognise acute and obtuse angles; recognise different types of triangle; investigate angles in quadrilaterals; sort quadrilaterals

31	3	Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA)	Understand and find tenths; find unit fractions of quantities; find non-unit fractions of amounts; find fractions equivalent to 1/2 and to 1/4; add and subtract fractions
	4	Mental multiplication and division (MMD); Written multiplication and division (WMD); Fractions, ratio and proportion (FRP); Decimals, percentages and their equivalence to fractions (DPE); Problem solving, reasoning and algebra (PRA)	Identify equivalent fractions; revise finding non-unit fractions of amounts; solve fraction word problems; divide 2-digit numbers by 1-digit numbers
32	3	Mental addition and subtraction (MAS); Written addition and subtraction (WAS); Measurement (MEA); Statistics (STA)	Add using compact addition; use column addition to add money; find change from £5, £10, £20 and 100 using Frog
	4	Written addition and subtraction (WAS); Measurement (MEA); Statistics (STA)	Revise 24-hour clock, am and pm; find time intervals using 24-hour clock; read and interpret a line graph; draw a line graph; convert units of time
33	3	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving, reasoning and algebra (PRA)	Add/subtract 3-digit numbers using place value; use the grid method; divide numbers; solve correspondence problems.
	4	Mental addition and subtraction (MAS); Mental multiplication and division (MMD); Written multiplication and division (WMD); Problem solving, reasoning and algebra (PRA)	Use the ladder method to multiply, including 3-digit numbers; solve multiplication/division word problems; use a mix of all four operations; solve word problems.